



# Industrial Materials Recycling

## Managing Resources for Tomorrow

### **NEARLY EVERY**

industrial process, from manufacturing consumer goods, to generating energy, produces many different types of usable materials. These industrial materials can be recycled just like newspapers—both are valuable commodities.

**Don't let valuable industrial materials go to waste. Recycle them today!**

### **Why recycle industrial materials?**

Recycled industrial materials, such as coal combustion products, foundry sand, and construction and demolition debris, have many of the same properties as the virgin materials they replace. They can even improve the quality of a product. For example, the use of coal fly ash can enhance the strength and durability of concrete.

Industrial materials recycling also:

Preserves our natural resources by decreasing the demand for virgin materials.

Conserves energy and reduces greenhouse gas emissions by decreasing the demand for products made from energy-intensive manufacturing processes.

Saves money by decreasing disposal costs for the generator and decreasing the cost of materials for end users.

### **Industrial materials**

#### **Coal Combustion Products**

Fly and Bottom Ash  
Boiler Slag  
Flue Gas Desulfurization Material

#### **Can be recycled in**

Portland cement and concrete  
Flowable and structural fill  
Wallboard

#### **Construction and Demolition Debris**

Concrete  
Gypsum from drywall  
Metals  
Bricks  
Asphalt from roads and roofing shingles  
Wood from buildings

#### **Can be recycled in**

Asphalt paving  
Concrete  
Re-milled lumber  
Wallboard

#### **Foundry Sand**

Spent sand used in metal casting

#### **Can be recycled in**

Road embankments  
Flowable and structural fill  
Base and sub-base for road construction

## Industrial materials recycling in action

### University of California, Berkeley, California

The University of California-Berkeley used high-volume fly ash concrete in reinforcing the stability of its two buildings, reducing the use of fossil fuels while saving thousands of dollars.

[http://greenbuildings.berkeley.edu/proj\\_wurster.htm](http://greenbuildings.berkeley.edu/proj_wurster.htm)

### Denver Stapleton Airport, Denver, Colorado

Recycled Materials Company, Inc. recovered and recycled 6.5 million tons of concrete and asphalt hardscape during the demolition of the former Stapleton International Airport.

[www.rmci-usa.com](http://www.rmci-usa.com)

### Cleveland Grand Prix, Cleveland, Ohio

Spent foundry sand has been used to make concrete barriers, including barrier production, for the Cleveland Grand Prix auto race.

## Build a sustainable future out of today's industrial materials. Visit:

### EPA Industrial Materials Recycling Web page:

[www.epa.gov/epaoswer/osw/consERVE/priorities/bene-use.htm](http://www.epa.gov/epaoswer/osw/consERVE/priorities/bene-use.htm)

**American Coal Ash Association**, a nonprofit organization promoting the recycling of coal combustion products:

[www.acaa-usa.org](http://www.acaa-usa.org)

**Construction Materials Recycling Association**, a trade association promoting construction and demolition debris recycling:

[www.cdrecycling.org](http://www.cdrecycling.org)

**Foundry Industry Recycling Starts Today**, a nonprofit consortium promoting the recycling of spent foundry sand:

[www.foundryrecycling.org](http://www.foundryrecycling.org)

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